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Notocorax kalabi, a new species from Burma (Coleoptera: Tenebrionidae: Platynotini)

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ABSTRACT. *Notocorax kalabi*, a new species from Burma is described, illustrated and compared with its relatives. Key for species determination is provided.

Key words: entomology, taxonomy, new species, Coleoptera, Tenebrionidae, Platynotini, *Notocorax*, Oriental Region.

INTRODUCTION

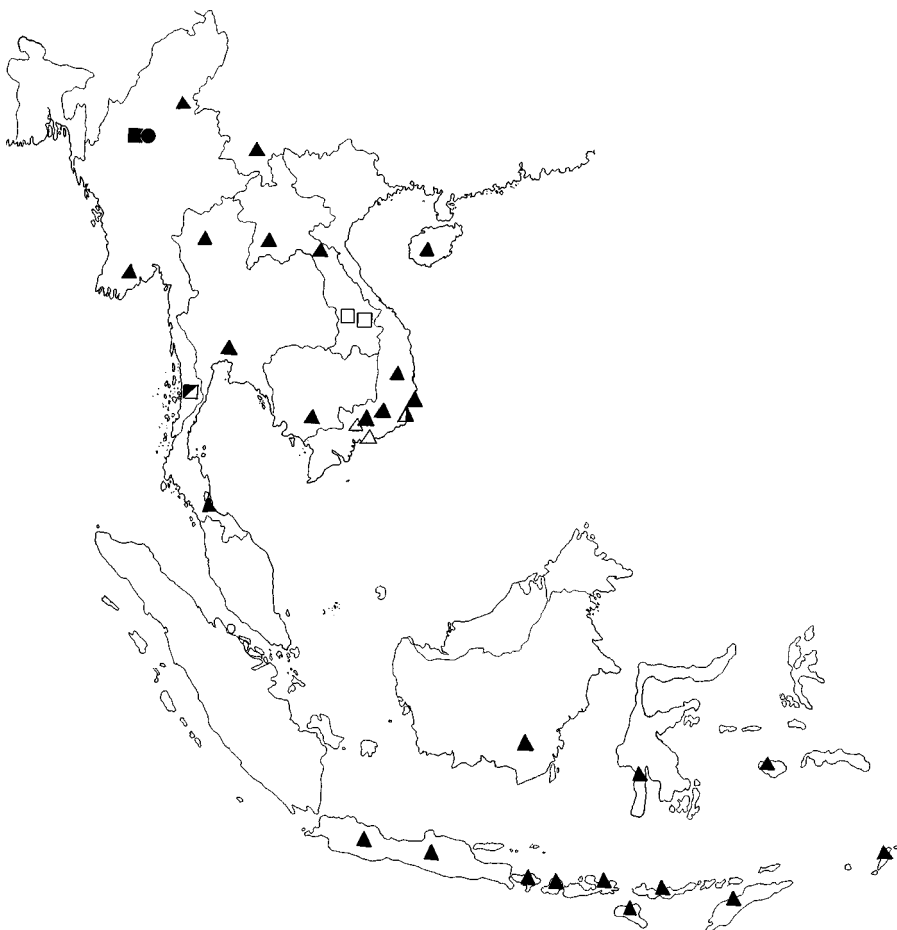
The cladistic analysis of the tribe Platynotini (IWAN 2002a) resulted in the cladogram with 3 major groups: melanocratoid, trogonopoid and platynotoid. *Notocorax* DEJEAN is a member of the platynotoid group (clade *Lechius*⁺). The genus is the most similar to *Opatrinus* DEJEAN (long antenna, basal border of pronotum interrupted medially, first plate of coxite short), from which it differs in the male fore tarsi (narrow) and the structure of elytron (elytral humeri not protruding outwards, epipleuron with sharp ridge on apex).

My interpretation of this genus was presented in the revision of the Asian genera of the tribe Platynotini (IWAN 1997), and the revision of the tribe Platynotini (IWAN 2002a).

The genus *Notocorax* was proposed by DEJEAN (1834), with *Opatrum javanum* WIEDEMANN, 1819 as type species (designated by monotypy).

Further new species of this genus have been collected by J. KALÁB from Burma.

At present *Notocorax* consists of 7 species (IWAN 2002b) (including *N. kalabi* described here) distributed in Oriental Region (fig. 1).



1. Distribution of the genus *Notocorax*: *N. javanus* (WIEDEMANN) – solid triangle; *N. phanrangiensis* IWAN – open triangle; *N. brancuccii* IWAN – solid/open triangle; *N. rondoni* (ARDOIN) – open square; *N. marzenae* (IWAN) – solid/open square; *N. minimus* IWAN – solid square; *N. kalabi* n. sp. – solid circle

MATERIAL AND METHODS

The measurements, taken using a filar micrometer, were as follows: width of lateral pronotal border – in the middle of lateral pronotal margin; width of anterior elytral margin – from humeral angle to scutellum; body length – from anterior margin of labrum to elytral apex; body width – maximum elytral width; pronotal

length – in the middle of pronotum; length of pronotum between angles – pronotal length from tip of anterior to tip of posterior angle.

The following abbreviations are used in the key and the description:

- ew/ed – clypeal emargination width/depth ratio;
- al/apl – length ratio antenna/pronotum;
- al/was3 – ratio length of antenna/ width of 3rd antennomere;
- as3/as2 – length ratio of antennomere 3/2;
- bp/lbp – breadth ratio pronotum/lateral pronotal border,
- mp/as3 – ratio width of maxillary palp/length of antennomere 3rd;
- pl/lapa – length ratio pronotum/anterior pronotal angles;
- pkp/st – width ratio anterior margin of elytra/scutellum at base;
- ml/mw – metepisternum length/width ratio;
- cavl/metl – length ratio cavity of hind coxa/metasternum between the insertions of mid and hind coxae;
- ftibl/ftibw – fore tibia length/width ratio;
- ffeml/ffemw – fore femur length/width ratio;
- tars1/2 – length ratio hind tarsomere 1/2;
- dtk/dod – length ratio posterior margin of hind tibia/inner spur of hind tibia;
- pav/pm – width ratio process of I abdominal ventrite/process of metasternum;
- tc/2bc1 – ratio total length of coxites/2 × breadth of first plate of coxite;
- bc1/lc1 – first plate of coxite breadth/length ratio;
- lc1/lc2 – length ratio first/second plates of coxite;
- lc3/lc3-lc4 – length ratio third plate of coxite/distance between bases of plates third and fourth;
- lc4-lc3/lc1 – length ratio first plate of coxite/distance between apices of plates fourth and third;
- lfb/lo – length ratio female body/ovipositor;
- pl/pb – pronotum length/breadth ratio;
- el/eb – elytra length/breadth ratio;
- el/pl – length ratio elytra/pronotum;
- eb/pb – breadth ratio elytra/pronotum.

KEY TO SPECIES

1. Elytral rows connected as follows: 1-free, 2-9, 3-6, 4-5, 7-8 (fig. 2); apical part of elytral epipleuron bordered (fig. 12) **2**
- . Elytral rows connected as follows: 1-9, 2-7, 3-6, 4-5, 8-free (fig. 3); apical part of elytral epipleuron unbordered (fig. 11) **5**
2. Elytral rows forming striae punctate; punctures large (fig. 5) **rondoni** (ARDOIN)
- . Elytral rows forming striae punctate-sulcate; punctures small (fig. 4) **3**

3. Middle of prosternum strongly punctate, punctures fused into shallow grooves (fig. 6); pronotal puncturation dense, distances between punctures equal to 0.5–1.5 puncture diameters (fig. 8) *javanus* (WIEDEMANN)
- Middle of prosternum virtually smooth, single, delicate punctures may be present (fig. 7); pronotal puncturation sparse, distances between punctures exceeding puncture diameters (ca. 1–4) (figs 9, 10) **4**
4. Body length 11.0–12.0 mm; body moderately convex; pronotum slightly more elongate, ratio pl/pb ca. 0.68–0.69; pronotum moderately dense punctate, distances between punctures ca. 1–3 puncture diameters (fig. 9); male fore tibiae simple on inner margin (fig. 14) *brancuccii* IWAN
- Body length 15.0–16.0 mm; body strongly convex; pronotum slightly less elongate, ratio pl/pb ca. 0.61–0.66; pronotum sparsely punctate, distances between punctures ca. 2–5 puncture diameters (fig. 10); male fore tibiae with a ridge on inner margin (fig. 13) *phanrangiensis* IWAN
5. Lateral margins of pronotum crenulate (fig. 15) *marzenae* IWAN
- Lateral margins of pronotum smooth (fig. 16) **6**
6. Anterior margin of prosternum and prosternal process distinctly bordered (fig. 18) *minimus* IWAN
- Anterior margin of prosternum and prosternal process unbordered (fig. 17) *kalabi* n. sp.

***Notocorax kalabi* n. sp.**

ETYMOLOGY

Dedicated to J. KALÁB, collector of the type specimen.

DIAGNOSIS

N. kalabi is similar to *N. minimus* and *N. marzenae* in the connection of the elytral rows (1-9, 2-7, 3-6, 4-5, 8-free) (fig. 3) and structure of the elytral epipleuron (unbordered on apex) (fig. 11).

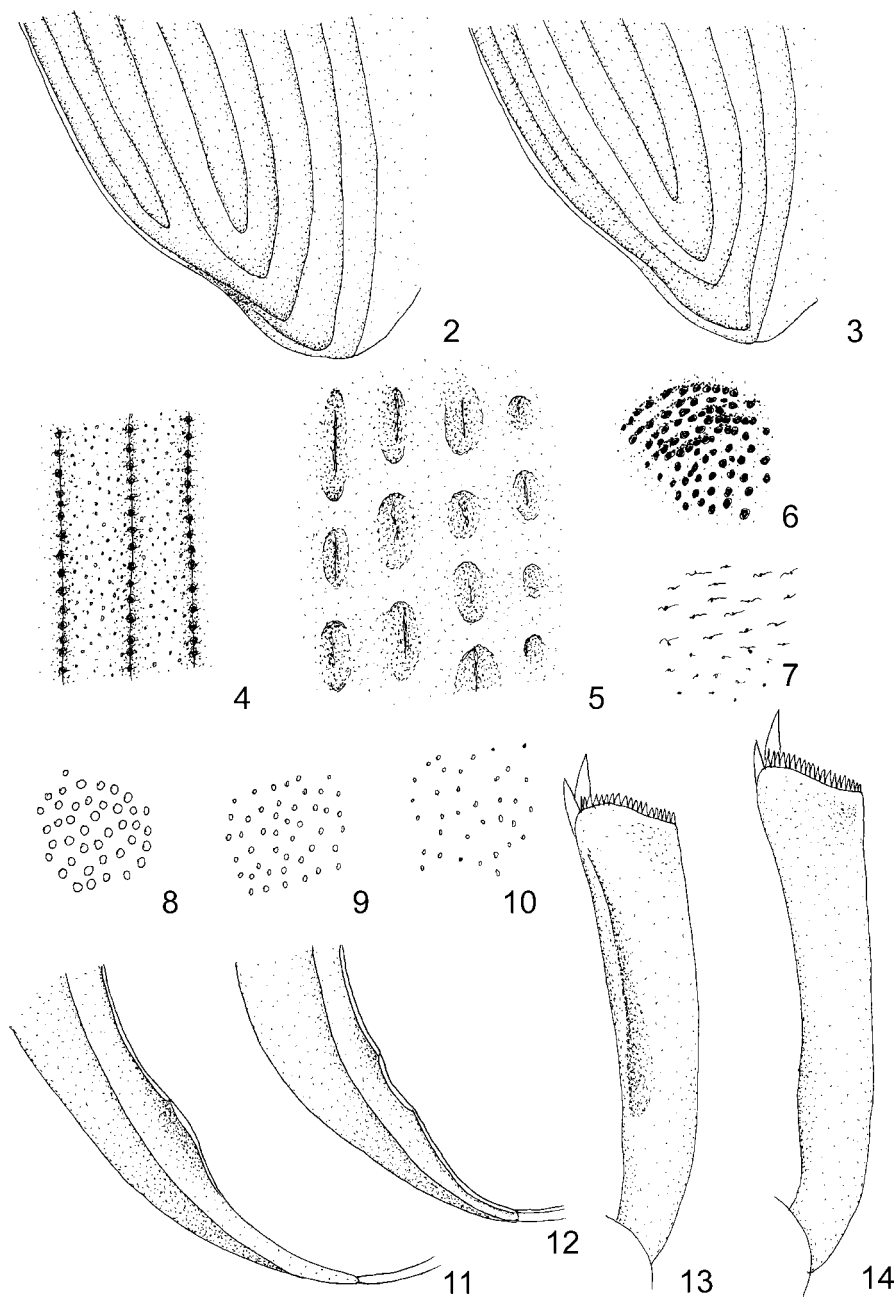
N. kalabi differs from all its congeners in the structure of prosternum (anterior margin and process unbordered) (fig. 17).

DESCRIPTION

Body black, shiny; distinctly convex, densely and distinctly punctate.

Measurements. Body length 11.4 mm, pl/pb = 0.66, el/eb = 1.35, el/pl = 2.51, eb/pb = 1.23.

Head as in fig. 19. Clypeus with shallow median emargination (ew/ed = 4.5). Genal canthus equal to eyes; circumocular depression deep; eye narrowed laterally (between tempus and genal canthus 3 ommatidia visible). Antenna long (al/apl = 1.12) and slender (al/was3 = 14.3), 3rd antennomere short (as3/as2 = 2.0), distal segments (antennomeres 7–11) evenly widened and elongate (fig. 20).



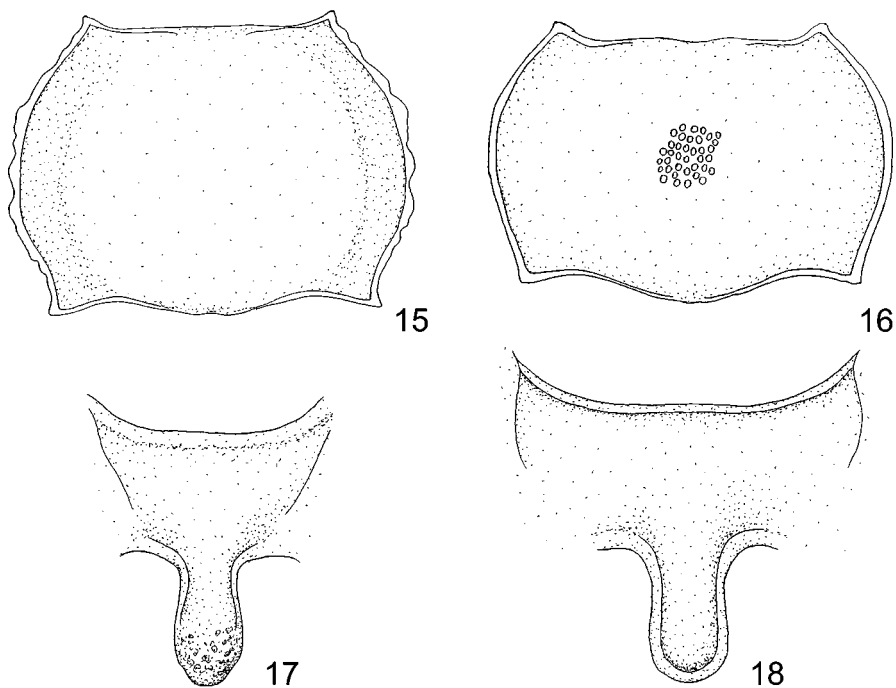
2-14. *Notocorax javanus* (2, 4, 6, 8, 12), *N. kalabi* (3, 11), *N. rondoni* (5), *N. brancuccii* (7, 9, 14), *N. phanrangiensis* (10, 13): 2, 3 - apical part of elytron; 4, 5 - elytral puncturation; 6, 7 - prosternal puncturation; 8, 9, 10 - pronotal puncturation; 11, 12 - apical part of elytral epipleuron; 13, 14 - male fore tibia

Mentum with short lateral wings, mid part short and strongly narrowing anteriorly, median keel flat. Submentum triangular with slightly elongated base. Last segment of maxillary palp moderately wide ($mp/as3 = 1.3$).

Pronotum with rounded sides (fig. 16); anterior angles slightly protruding anteriad ($pl/lapa = 13.4$), posterior angles right and not reaching the middle of base; base doubly sinuately emarginate; border of anterior and posterior (base) margin interrupted in middle, lateral border narrow ($bp/lbp = 51$), of even width along its whole length anterior to posterior angles; pronotal hypomeron evenly convex at base, puncturation coarse and dense.

Scutellum wide ($pkp/st = 2.9$) and depressed below the plane of elytra.

Elytron of 9 rows (striae punctate-sulcate) connected as follows: 1-9, 2-7, 3-6, 4-5, 8-free (fig. 3); sides rounded, distinctly tucked in posteriorly (interval IX and part of VIII visible from underside); intervals with distinct puncturation; anterior margin bisinuate and unbordered, upper edge convex medially (disappearing just before humeri), laterad of scutellum not depressed (fig. 23); elytral humeri rounded and not protruding outwards, situated at the level of scutellum; epipleuron flat and evenly narrowing towards apex, outer margin oblique; epipleuron at apex flat, inner margin unbordered (fig. 11).



15–18. *N. marzenae* (15), *N. kalabi* (16, 17), *N. minimus* (18): 15, 16 – pronotum; 17, 18 – prosternum

Prosternum evenly convex, border of anterior margin narrow and unbordered, prosternal process protruding towards mesosternum, its border narrow and interrupted at apex (fig. 17).

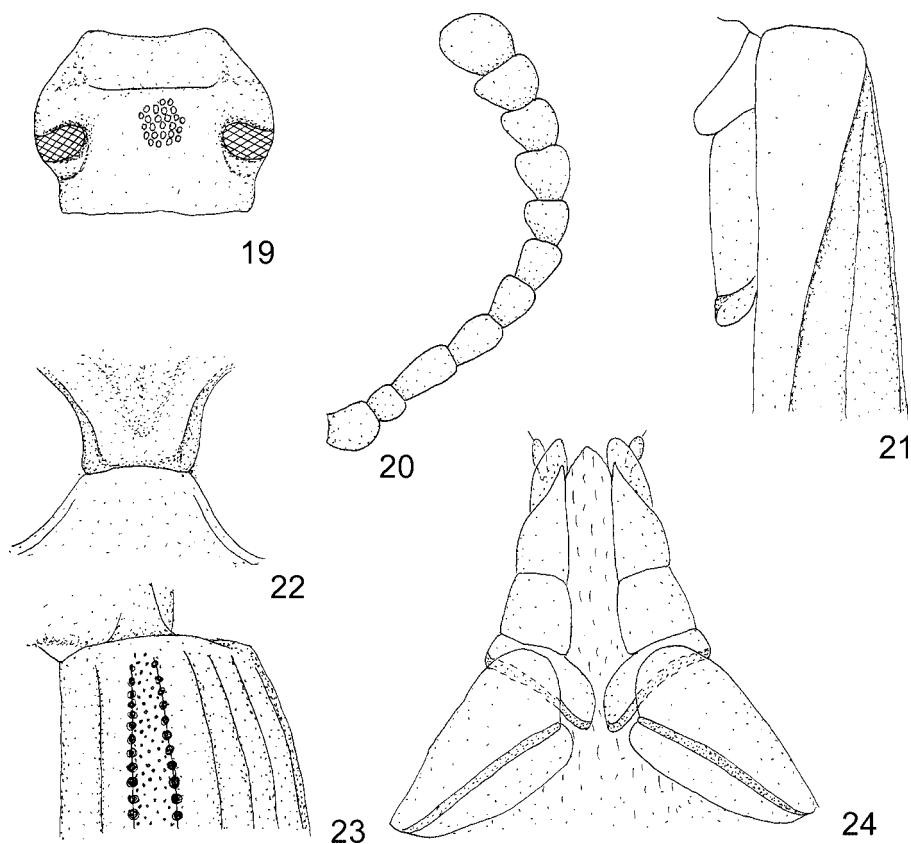
Wings entirely reduced.

Metasternum between insertions of mid and hind coxae moderately short ($cavl/metl = 1.5$); metasternal process flat (fig. 22).

Metepisternum rectangular and long ($ml/mw = 3.4$) (fig. 21).

Legs. Female fore tarsi narrow, hind tarsi long ($tars1/2 = 2.3$); fore tibia slender ($ftibl/ftibw = 4.4$), outer apical denticle of fore tibia straight, outer margin of fore tibia simple; outer margin of mid tibia simple, inner spur of hind tibia moderately long ($dtk/dod = 1.8$); fore femur moderately wide ($ffeml/ffemw = 4.1$).

Abdominal ventrites smooth, bordering of the last abdominal ventrite entire, process of I abdominal ventrite narrow ($pav/pm = 1.7$).



19–24. *N. kalabi*: 19 – head; 20 – antenna; 21 – anterior part of elytral epipleuron, metepisternum and metepimeron; 22 – mesosternal process and anterior part of metasternum; 23 – anterior part of elytron; 24 – ovipositor

Female genitalia, $lfb/lo = 5.9$, ovipositor as in fig. 24, paraproct equal to coxites; coxites longitudinal ($tc/2bc1 = 1.2$), first plate moderately wide ($bc1/lc1 = 3.0$) and short ($lc1/lc2 = 0.7$), distance between bases of plates three and four long ($lc3/lc3-lc4 = 1.8$), fourth plate longitudinal, its apical free part moderately long ($lc4-lc3/lc1 = 0.50$).

TYPE MATERIAL

Holotype (female): „Burma, 24.VI.1997, N Mandalay division, ca 30 km SW Pyin Oo Lwin (on road P. O. Lw.-Mandalay), J. KALÁB leg.”; preserved in Zoologisches Staatssammlung, München, Germany (in permanent loan to Prof. Hans J. BREMER).

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